

**DEPARTMENT OF TRANSPORTATION****DIVISION OF ENGINEERING SERVICES**

Office of Structural Materials

Quality Assurance and Source Inspection



Bay Area Branch  
690 Walnut Ave. St. 150  
Vallejo, CA 94592-1133  
(707) 649-5453  
(707) 649-5493

Contract #: 04-0120F4Cty: SF Rte: 80 PM: 13.2/13.9File #: 1.28**WELDING INSPECTION REPORT****Resident Engineer:** Pursell, Gary**Address:** 333 Burma Road**City:** Oakland, CA 94607**Report No:** WIR-000802**Date Inspected:** 01-Nov-2007**Project Name:** SAS Superstructure**OSM Arrival Time:** 600**Prime Contractor:** American Bridge/Fluor Enterprises, a JV**OSM Departure Time:** 1700**Contractor:** American Bridge/Fluor Enterprises, a JV**Location:** Benicia, Ca.**CWI Name:** William Norris**CWI Present:** Yes No**Inspected CWI report:** Yes No N/A**Rod Oven in Use:** Yes No N/A**Electrode to specification:** Yes No N/A**Weld Procedures Followed:** Yes No N/A**Qualified Welders:** Yes No N/A**Verified Joint Fit-up:** Yes No N/A**Approved Drawings:** Yes No N/A**Approved WPS:** Yes No N/A**Delayed / Cancelled:** Yes No N/A**Bridge No:** 34-0006**Component:** Procedure Qualification**Summary of Items Observed:**

The Caltrans Quality Assurance (QA) Inspector arrived at the Ironworkers Apprenticeship Training Facility and witnessed welding of a Procedure Qualification (PQR) test plate designated ABF-PQR-03-1-C using self shielded flux cored arc welding (FCAW) using Coreshield 8 electrode, .072 in. diameter. The welding was conducted with the support of a track guided "Bug O" system in the 4G (overhead) position. The welding was performed per the AWS D1.5, 2002 Section 5.13 requirements. The Smith Emery QC inspector, Mr. William Norris recorded the preheat and interpass temperatures, the average amperage, voltage and the travel speed for all weld passes. The QA inspector observed that the welder Mr. Daniel Gordon partially removed the third pass using a manual air-carbon arc gouging system. After the air-carbon arc cutting was complete, the weld groove was ground. After welding of the cover passes, the QC inspector Mr. Bill Norris identified an area of under fill at the end of the plate. This area was welded with the same parameters as the remainder of the weld without the support of a track guided system. The welding of this plate was completed on this date. The QA inspector noted that the welding appeared to comply with the contract documents.

**Summary of Conversations:**

At the start of welding the QC inspector reported that the Procedure Qualification test was to be performed in accordance with AWS D1.5-2002 section 5.13 and the maximum heat input would be used. Note: The term maximum heat input is being used by ABF for tests per 5.13 to qualify a larger welding parameter range and is not the maximum heat input test described in section 5.12. ABF intends on welding several PQR test plates per 5.13 using higher and lower heat inputs to achieve this. At the completion of the welding the QC inspector Mr. Morris reported that the test plate visual inspection would be performed at a later date.

During this visit, METS met with Mr. Bill Norris, Quality Control Inspector, of Smith Emery, Mr. James Bowers, Quality Control Manager of American Bridge / Fluor and Mr. Robert Mertz of Caltrans METS. The visual

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inspection requirements of the contract special provisions and AWS D1.5-2002 were discussed.

### Comments

This report is for the purpose of determining conformance with the contract documents and is not for the purpose of making repair or fit for purpose recommendations. Should you require recommendations concerning repairs or remedial efforts please contact Mazen Wahbeh, (818) 292-0659, who represents the Office of Structural Materials for your project.

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<b>Inspected By:</b>	Lanz,Joe	Quality Assurance Inspector
<b>Reviewed By:</b>	Mertz,Robert	QA Reviewer

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